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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,214	02/06/2002	Bhashyam Ramesh	10002	7048

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EXAMINER

MIZRAHI, DIANE D

ART UNIT PAPER NUMBER

2165

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/068,214

Applicant(s)

RAMESH ET AL.

Examiner

DIANE D. MIZRAHI

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 2, 24 and 33-39 is/are rejected.  
7) ☒ Claim(s) 3-23 and 25-32 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 13 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

Claims 1-39 are presented for examination.

In response to Applicants remarks all previous presented rejections of the claims are hereby withdrawn as to being moot. See New Office Action below:

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 24 and 33-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner is unclear as to what Applicant intended by “when” (line 2).

Also, Regarding Claims 33-39, Examiner is unclear as to what Applicant intended by the claimed, “adapted to” (see claim 33, line 4 for example) Further clarification is required.

**Claim Rejections - 35 USC 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claims 1, 24 and 33 are rejected under 35 U.S.C. 101 because the claims are directed to a non-statutory subject matter, specifically, the claims are not directed towards the final result that is “useful, tangible and concrete.

(See State Street, 149 F.3d at 1373-74 USPQ2d at 1601-02).

According to the New Guidelines of October 26, 2005, which states that “A claim limited to a machine or manufacture, which has a practical application, is statutory. In most cases a claim to a specific machine or manufacture will have a practical application. See Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557)... a specific machine to produce a useful, concrete, and tangible result and State Street, 149 F.3d at 1373-74 USPQ2d at 1601-02).

(Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility  
<[http://rs6.net/tn.jsp?t=mdmd7pbab.0.kbg76pbab.p9qiiibab.7440&p=http%3A%2F%2Fwww.uspto.gov%2Fweb%2Foffices%2Fpac%2Fdapp%2Fopla%2Fpreognotice%2Fguidelines101\\_20051026.pdf](http://rs6.net/tn.jsp?t=mdmd7pbab.0.kbg76pbab.p9qiiibab.7440&p=http%3A%2F%2Fwww.uspto.gov%2Fweb%2Foffices%2Fpac%2Fdapp%2Fopla%2Fpreognotice%2Fguidelines101_20051026.pdf)> )

Examiner requests Applicant to include in Applicants claimed limitations (in all the claims) the following:

What is the practical application?

What is the result?

What is final result that is concrete, useful and tangible?

Because the “practical application, result, concrete, useful and tangible” limitations are not claimed in Applicant’s claims, Examiner believes that the above listed claims are nonstatutory.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Yanchun Zhang et al. (IEEE paper entitled, "Parallel algorithms for spatial data partition and join processing and Zhang hereinafter).

Regarding Claims 1 and 33, Zhang teaches storing plural tables (i.e. spatial tables)(page 703) and (whole document) ; dividing the spatial objects across plural partitions (page 706) and (whole document) and performing, in parallel (page 707) and (whole document) in the partitions, a join of the spatial objects of the plural tables (i.e. spatial join)(page 709-710) and (whole document).

Regarding Claim 2, Zhang teaches decomposing each of the spatial objects into subspaces, the subspaces distributed across the plural partitions (page 709-710) and (whole document).

**Allowable Subject Matter**

Claims 3-23 and 25-32 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding Claims 3-23, the following is a statement of reasons for the indication of allowable subject matter: Applicant's particular spatial objects across plural partitions performing in parallel plural partitions a join of spatial objects of plural tables, in particular, decomposing each spatial objects in subspaces across plural partitions in combination with the other limitations of the claims, was not disclosed by, would not have been obvious over, nor

would have been fairly suggested by the prior art of record. The dependent claims, being further limiting to the independent claims, definite and enabled by the Specification are also allowed.

The closest prior art fails to anticipate or render Applicant's limitations above obvious.

Regarding Claims 25-32, the following is a statement of reasons for the indication of allowable subject matter: Applicant's particular spatial objects across plural partitions performing in parallel plural partitions a join of spatial objects of plural tables, in particular, where the spatial objects are z-cells at z-leves, where z-levels are the optimal join level in which z-cells are at optimal join level in combination with the other limitations of the claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record. The dependent claims, being further limiting to the independent claims, definite and enabled by the Specification are also allowed.

The closest prior art fails to anticipate or render Applicant's limitations above obvious.

**Other Prior Art Made of Record**

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. U.S. patents and U.S. patent application publications will not be supplied with Office actions. Examiners advises the Applicant that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. For the use

of the Office's PAIR system, Applicants may refer to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane D. Mizrahi whose telephone number is 571-272-4079. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 305-3900 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

A handwritten signature in black ink, appearing to be 'D. Mizrahi', written over a horizontal line.

Diane Mizrahi  
Primary Patent Examiner  
Technology Center 2100

October 11, 2006